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EXAMINER	
MAKI, STEVEN D	
ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/698,369	LOPEZ ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-17 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 110303.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1) The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "55" has been used to designate both elements in figure 11 and holes in figure 4. It appears that "55" in figure 11 should be --57--. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, there is no antecedent basis for "the regrooving groove to be created", "the axis of rotation" and "the maximum regrooving height H". In claim 1, the following changes are suggested: (1) on lines 5-6, change "the regrooving groove to be created" to --a regrooving groove to be created--, (2) on lines 6-7, insert --of the tire-- after "the

axis of rotation" and (3) change "the maximum regrooving height H" to --a maximum regrooving height--.

In claims 5 and 6, the scope and meaning of "curve" is unclear since (1) a closed curve would appear to exclude a parallelogram and (2) claim 5 recites "closed curve such as a circle or parallelogram".

In claim 5, it is unclear how "be they" affects the scope of the claim. In claim 5, it is suggested to change "be they" to --, which are--.

In claim 7, there is no antecedent basis for "the standardized thickness of the wear indicators". In claim 7, it is suggested to change "the standardized thickness of the wear indicators" to --the thickness of wear indicators--.

In claim 8, there is not antecedent basis for "the ... inserts--. Should "inserts" be --anti-sticking material--.

In claim 11, the scope of "amount of bridging being between 5% and 35%" is unclear. What is the amount of bridging (volume? / area? / weight?) based on?

In claim 14, the scope of "consisting for example of" is unclear. Is this closed language or open language?

In claim 15, "." on last line of part (b) should be --,--.

In claim 16, it is unclear which step(s) precedes "it then consists of using".

In claim 16 (dependent on claim 2), the description of "the anti-connection elements, incisions" (elements and incisions?) is confusing since claim 2 states "element(s) are ... incisions".

In claim 16, there is no antecedent basis for "the incisions of the new tread".

4) Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 7 broadens claim 1 since the use of the word "preferably" removes the requirement in claim 1 of quantity h1.

5) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Japan 115 (material)

7) **Claims 1 and 3-5 are rejected under 35 U.S.C. 102(a), (b) as being anticipated by Japan 115 (JP 2001-39115).**

The claimed anti-rubber-on-rubber connection element reads on the **peelable rubber B shown in figure 5**. The claimed rubber bridge reads part of rubber A extending over the peelable rubber B.

8) **Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 115 in view of Japan 516 (JP 2001-187516) or Schrank (US 2246479).**

As to Japan 516, applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Japan 115 substantially discloses the claimed method (see figure 3), except for the step of laying profiled regrooving fillers of nonvulcanized rubber "in" the grooves provided with their inserts. As to claim 15, it would have been obvious to one of ordinary skill in the art to form Japan 115's inserts B for regrooving with a U shape and lay profiled regrooving fillers of nonvulcanized rubber "in" the grooves provided with the U-shaped inserts in view of (1) the suggestion from Japan 516 (figure 1) or Schrank (figures 4-5) to use U-shapes for forming new grooves in a tire tread and (2) Japan 115's teaching to surround inserts for forming new grooves in a tire tread by laying rubber material on the inserts.

Pederson (material)

9) **Claims 1, 3-5, 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Pederson (US 1876016).**

See figures 1-3 and page 1 lines 95-97. As to claims 13 and 14, "sand" ("internal anti-rubber-on-rubber connection element") inherently has a different color than rubber.

Flautt (material)

10) **Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Flautt (US 2148343).**

Flautt discloses a pneumatic tire having a tread comprising circumferential grooves, ribs and **secondary non-skid tread forming fillers 1**. After wear, the fillers are exposed and are released form the tread base structure to form a secondary tread design. Flautt teaches "... or they may be removed manually upon becoming sufficiently exposed due to the outer structure of the tire tread wear surface wearing down to the fillers 1".

As to claim 1, the claimed tire is anticipated by Flautt's tire. The claimed "internal anti-rubber-on-rubber connection element" reads on the secondary non-skid tread forming fillers 1. The claimed "means providing a partial connection to its rubber surroundings, said means being at least a rubber bridge which prevents ejection of the material occupying said regrooving groove during travel when said anti-connection element opens on the running surface after wear" reads on the portion of rubber above the filler which (a) remains after the filler is sufficiently exposed and (b) can be manually removed. As to quantity h1 being less than depth h of the grooves, see overlap 11.

As to claims 3-5, the claimed solid material / anti-sticking material reads on Flautt's filler 1, which as can be seen from figure 1 is located in a space below the tread surface and defines a "closed curve" in cross-section..

11) **Claims 7, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flautt in view of Auxerre et al (US 6003576).**

As to claim 7, it would have been obvious to one of ordinary skill in the art to provide Flautt's tread with a wear indicator in a circumferential groove such that the difference h - h1 is at least equal to the wear indicator thickness since (1) Auxerre et al

teaches that it is well known in the tire art to locate a small platform of rubber in a circumferential groove to indicate the minimum depth of the tread that legally must remain on the tread in use of the tire (col. 1) and (2) Flautt teaches positioning the upper end of the filler above the bottom of the circumferential groove by distance 11 (figure 1).

As to claims 13 and 14, it would have been obvious to one of ordinary skill in the art to provide Flautt's filler (e.g. combination of rubber and fabric) for forming new grooves after wear with a different color than the tread to facilitate manual removal of the filler as per Flautt's teachings at page 3 left column lines 33-36 in view of Auxerre et al's teaching to use colored rubber in a tread to indicate depth for regrooving to form new grooves after wear.

12) **Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flautt in view of Schrank and Pederson.**

As to claim 12, it would have been obvious to one of ordinary skill in the art to provide Flautt's tread with a network of fillers so that the secondary tread has new circumferential and transverse grooves connected together in view of Pederson's teaching to form new circumferential and transverse grooves and Kovacs suggestion to form new transverse grooves which connect to circumferential grooves.

Japan 406 (space)

13) **Claims 1-5 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 406 (JP 3-153406).**

The claimed "anti-rubber-on-rubber connection element" reads on the slits 7. The claimed at least one bridge reads on part of the rubber radially above the slit. Claim 1 reads on the regrooving groove being a transverse groove.

Japan 905 (space)

14) **Claims 1, 3-6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 905 (JP 4-113905).**

Japan 905 discloses a precured tread for a tire comprising surface grooves 5 and back grooves 6 wherein the bottom of the back face groove is located at a position above the bottom of the surface groove. See figure 1, which illustrates G < H.

As to claim 1, the claimed "anti-rubber-on-rubber connection element" reads on the back groove 6. The claimed at least one bridge reads on part of the rubber radially above the back groove.

As to claims 3 and 4, the back groove is a space.

As to claims 5 and 6, "incisions" reads on back grooves.

15) **Claims 2, 5-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 905.**

As to claims 2, 5 and 6, it would have been obvious to one of ordinary skill in the art to provide the back grooves of Japan 905 as "incisions" having a width such as 0.2 - 2 mm since (1) Japan 905 teaches that the back grooves have a sufficiently narrow width so that under load the protrusion 8 contacts the base of the tire and the groove walls of the back groove and optionally (2) it is well known in the tire tread art

that the walls of a sipe / incision having a width less than 2 mm contact each other under load.

16) **Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 905 in view of Japan 406.**

As to claim 16, it would have been obvious to one of ordinary skill in the art to use a first die and second die as claimed to form Japan 905's precured tread since Japan 406 suggests using an upper metal mold and lower metal mold to form a precured tread, which like that of Japan 905, is profiled on the outer surface and inner surface of the precured tread.

De Labareyre et al (rubber connecting elements)

17) **Claims 1-6 and 11-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over De Labareyre et al (WO 98/35842).**

US 6,484,772 is an English language equivalent to WO 98/35842, which is available under 102(b).

De Labareyre et al discloses a tread comprising incisions in relief elements separated by circumferentially extending grooves wherein the walls of the incisions are connected by rubber connecting elements. See figures 4, 9A or 9B. The incisions can be located below the tread surface. See figure 8. The incisions having the rubber connecting elements tread can be made using inserts such as sheets of paper having orifices ("perforated paper sheets") wherein the orifices may have a size of 2 mm by 5

mm. The connection surface defined by the connecting elements is at least 10% of the surface of the wall. The incisions have a width of 0.1 mm to 2 mm.

The claimed tread is anticipated by De Labareyre et al's tread. One of ordinary skill in the art would readily understand that the incisions in the figure 8 embodiment is used in a rib. The claimed anti-rubber-on-rubber connecting element reads on the space defined by the incision(s) with or without being filled by the inserts (e.g. perforated paper sheet (s)). In other words, the connection element reads on one of the incisions or a pair of incisions. With respect to a pair of incisions, it is noted for example that the middle pair of hidden incisions in figure 8 have "independent branches" and thereby corresponds to applicant's figure 8 embodiment. The description regarding "regrooving" relates to intended use and fails to require structure not disclosed by De Labareyre et al. In claim 5, "closed curve" reads on the rectangular form of the incision In claim 6, "open curve" reads on a pair of the incisions. As to claim 12, note figure 9. As to claims 13-14, paper inherently has a color different from the rubber of the tread.

18) **Claims 1-6 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Labareyre et al in view of Great Britain 271 (GB 511271).**

De Labareyre et al is considered to anticipate claim 1. In any event:

As to claim 1, it would have been obvious to one of ordinary skill in the art to provide De Labareyre et al's incisions (slits) having walls connected by rubber connecting elements) as hidden incisions in ribs of a tire tread since (1) De Labareyre et al suggests providing incisions (slits) having walls connected by rubber connecting elements beneath the tread surface and (2) Great Britain 271 suggests providing hidden

slits (incisions) in ribs of a tire tread so that slits will function throughout the useful life of the tire.

It is noted that the description of regrooving in claim 1 relates to intended use and fails to require tread structure not suggested by the applied prior art.

As to claim 2, De Labareyre et al suggests a width of 0.1 to 2 mm.

As to claims 3 and 4, note the material (e.g. paper) for the inserts disclosed by De Labareyre et al.

As to claim 5, "closed curve" reads on and fails to exclude other shapes such as rectangular.

As to claim 6, De Labareyre et al suggests adjacent incisions (independent branches).

As to claim 10, the claimed spacing of at most 6 mm would have been obvious and could have been determined without undue experimentation in view of De Labareyre et al's suggestion to use relatively close spacing (10 mm is used in figure 9B) for the incisions in a tire having a very good level of adhesion to a wet road and to a dry road with low emission of noise.

As to claim 12, it would have been obvious to form the claimed network in view of De Labareyre et al's suggestion to use intersecting circumferential and transverse incisions.

As to claims 13 and 14, De Labareyre et al suggests materials (e.g. paper) which have a different color than the rubber of the tread.

19) **Claims 6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Labareyre et al in view of Great Britain 271 as applied above and further in view of Lagnier et al (WO 98/54009) or Japan 430 (JP 11-78430).**

US 6408910 is an English equivalent to WO 98/54009, which is available under 102(b).

As to claim 6, it would have been obvious to one of ordinary skill in the art to provide the incisions with an "open curve" having "at least two branches" in view of (1) Lagnier et al's suggestion to provide *hidden* incisions with an "open curve" as shown in figure 6 or (2) Japan 430's suggestion to provide sipes (slits) with an "open curve" as shown in figure 2 to *restrain a change of lowering of braking distance* on a wet surface after wearing.

As to claim 6, Lagnier et al or Japan 430 suggest at least two branches.

As to claims 8 and 9, Japan 430 suggests the variable height / periodic function.

Allowable Subject Matter

20) **Claim 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.**

There is no motivation or suggestion to modify De Labareyre et all so as to perform a process of regrooving in which a small number of *bridges* are cut out after visualization and the rest of the *bridges* of vulcanized rubber are broken by traction.

Remarks

21) The remaining references are of interest.

22) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
September 26, 2005

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